

Massachusetts Digital Health COVID-19 Recovery Challenge #1

Innovations to Support Family Caregivers

We seek startups, entrepreneurs, and intrapreneurs who are developing and validating digital health based solutions for caregivers to compete in the first Massachusetts Digital Health COVID-19 Recovery Challenge. This Challenge is focused on finding solutions for unpaid family caregivers providing support to loved ones outside of traditional child rearing. Challenge finalists will compete for \$250,000 in prizes that must be used to fund validation studies at MeHI's Digital Health Sandboxes.

The COVID-19 pandemic has heightened our awareness of the critical role family caregivers play in our society and the ways they impact our healthcare system and the overall economy. More than 53 million Americans provide unpaid care to an adult or a child with special needs.¹ That number has only grown since the onset of the pandemic as many more people were thrust into the role of caregiver for newly socially isolated elders and as others took in family members who felt unsafe in congregate housing or assisted living. The pandemic has also worsened health outcomes for caregivers. Since the onset of the pandemic, unpaid caregivers reported disproportionately worse mental health outcomes, increased substance use, and elevated suicidal ideation.² Many caregivers have also had to leave the workforce or scale back their hours, with 69% of working caregivers reporting having to rearrange their work schedule, decrease their hours, or take an unpaid leave in order to meet their caregiving responsibilities.³

We launched this Challenge to find digital health solutions that can address these issues by supporting caregivers in facing new challenges to caring for loved ones and by helping them return to work. We take an expansive view of potential solutions and recognize that technology that improves the quality of life of an older adult or a person with disabilities will also reduce the burden on his/her caregiver. We also broadly define digital health and are looking for solutions at the intersection of healthcare and technology.

In addition to startups and entrepreneurs, this Challenge is also open to intrapreneurs. Intrapreneurs are innovators employed at existing, mature companies who have ideas for a new, innovative product or service outside the company's traditional product line. Intrapreneurs are especially suited for this Challenge as they can draw on pre-existing resources at their companies, like staff, technology, and networks, to quickly bring products to market.

¹ The National Alliance for Caregiving (NAC) and AARP, "Caregiving in the U.S. 2020", (2020): <https://www.caregiving.org/caregiving-in-the-us-2020/>

² Mark E. Czeisler et al. "Mental Health, Substance Use, and Suicidal Ideation During the COVID-19 Pandemic — United States, June 24–30, 2020", *MMWR Morb Mortal Wkly Rep*, 69, no. 32 (2020):1049–1057, doi: <http://dx.doi.org/10.15585/mmwr.mm6932a1>external icon

³ Family Caregiver Alliance, "Caregiver Statistics: Work and Caregiving", 2016, <https://www.caregiver.org/resource/caregiver-statistics-work-and-caregiving/>

Challenge Areas and Solutions Sought

The following are examples of challenges that we believe can be addressed by digital health solutions. This is not an exhaustive list and any applicants with ideas for supporting unpaid family caregivers are encouraged to apply.

Direct Supports for Caregivers

- During the pandemic, caregivers faced increased social isolation and stress and had access to fewer resources, disproportionately impacting their behavioral and mental health.
- Employers struggle to support their caregivers, particularly during the pandemic, and are in search of low cost, easy to implement solutions to help their caregiving employees return to the office.
- Caregivers have fewer social supports and options for respite due to the limitations of the pandemic.
- Family caregivers are often the first to notice subtle changes in their loved one's condition. Bi-directional communication about these changes with their loved one's medical care team is critical to delivering the best possible person-centered care.

Solutions that Make Caregiving Easier

- Caregivers have dealt with more transportation challenges during the pandemic, particularly those who rely on public transportation.
- Many caregivers and their loved ones face barriers to accessing telemedicine, including no, or limited, technical skills.
- Many more caregivers are supporting their family members from a distance and need solutions like communication tools, remote monitoring devices, and support for making decisions on end of life care and healthcare proxies remotely.
- To decrease stress, improve their own health outcomes, and help them return to work, caregivers need solutions that help their loved ones with activities of daily living or that prevent adverse events.

Solutions to these challenge areas may include the following, but all applicants with relevant solutions are encouraged to apply:

- Remote monitoring devices
- Wearable tech solutions
- Mental and behavioral health platforms
- Employee facing support platforms
- Peer-to-peer communities and support platforms
- Simplified telehealth solutions
- Care coordination tools
- Communication tools
- Assistive technology devices
- VR / AR tools
- Mobile applications

Program Overview

The Massachusetts Digital Health COVID-19 Recovery Challenge program is designed to accelerate digital health solutions that support family caregivers and healthcare providers. The program is supported by funding from the U.S. Department of Commerce's Economic Development Agency through their SPRINT Challenge Grant.

Through two Challenges, the program will source, accelerate, and validate potential solutions to help the economies of Massachusetts and the US recover from COVID-19 more quickly. The first challenge is aimed at solutions that support family caregivers.

A group of expert reviewers will recommend up to 8 applicants to participate in a three-month, virtual accelerator run by [Lever](#) and sponsored by the [Massachusetts eHealth Institute](#) at the [Massachusetts Technology Collaborative](#). Reviewers will evaluate applications on the proposed solution's uniqueness in the market, its opportunity to support recovery from the pandemic, its potential impact on family caregivers, and its potential commercial viability.

During the accelerator, Lever will use their proven curriculum of lean startup workshops and tailored expert mentoring to help participants develop their solution, business plan, and go-to-market strategy. Participants will also be matched with Sandboxes, cutting edge research and development organizations, from the [Massachusetts Digital Health Sandbox Network](#). The Sandboxes will assist participants in scoping projects to test and validate their solution to bring it to market faster. Lever will support participants in preparing detailed project plans outlining how the award funding would be used to complete the scoped Sandbox project.

The Challenge will culminate in a pitch event where the winner will be awarded **\$100,000** in tuition to cover the fees for their validation project with their Sandbox partner. Three runners-up will receive **\$50,000** each in tuition to cover the fees for their Sandbox projects. The funding will go directly to the Sandboxes. This level of tuition can typically cover extensive user experience testing, access to cutting edge lab facilities and subject matter experts, or a pilot in a healthcare setting.

Benefits to Participants

While only the top four solutions in each Challenge will receive tuition to complete their Sandbox projects, all participants will benefit from the program. Benefits include:

- De-risk your business model – “look before you leap”
 - Have confidence in your product-market fit
 - Get access to potential investors and buyers
 - Gain knowledge of the market opportunity
- Accelerate time from R&D to production
 - Participate in rapid build-measure-learn cycles
 - Benefit from cohort learning
 - Work with experts to assess your testing needs and scope detailed validation projects
- Gain Funding Access
 - \$100,000 in Sandbox tuition for 1st place
 - \$50,000 in Sandbox tuition for 2nd, 3rd, 4th place
 - Everyone will be prepared for investor meetings

Timeline

Release RFA: Tuesday, June 1

Information Session: Tuesday, June 22

Application deadline: Friday, July 30

Finalists selected: Friday, August 20

Kickoff meeting*: Friday, September 10

Workshop 1*: Friday, September 17

Workshop 2*: Friday, October 1

Workshop 3*: Friday, October 15

Workshop 4*: Friday, October 29

Workshop 5*: Friday, November 5

Pitch Mentoring: Friday, November 12

Pitch Event*: Thursday, November 18

*Finalists must attend each of these sessions. Kickoff meeting will take one hour.

Workshops will take two hours.

Eligibility

- Applicants must propose a new solution that is not yet widely commercially available.
- Applicants may be located anywhere in the US. However, participants must be willing to participate in a pitch event at the end of the accelerator. Winners of the Challenge must be willing to participate in a promotional event at the conclusion of the program. The pitch event will take place in November 2021 and the promotional event is likely to take place in 2023. Both events are currently being planned as in person events in Massachusetts.
- Participants in the accelerator must agree to track and report on the following metrics for five years after the program ends to comply with federal reporting requirements:
 - Number of jobs created at your company
 - Number of new customers gained
 - Number of new patents, copyrights, or trademarks obtained
 - Diversity of your board members and/or executive team

How to Apply

Click [here](#) to apply: <https://www.cognitofirms.com/MungyStudios/SandboxChallengeApplication>
In submitting an application, you acknowledge that the application is a public record and may be disclosed if requested. Please do not include any proprietary or confidential information in this application.

For more information:

Visit www.massdigitalhealth.org/covidchallenge

Contact Program Manager, Katie Green, at green@masstech.org

About the Massachusetts eHealth Institute at the Massachusetts Technology Collaborative

The [MassTech Collaborative](#) is a quasi-public economic development agency that strengthens the competitiveness of the tech and innovation economy by driving strategic investments, partnerships, and insights that harness the talent of Massachusetts. MeHI is a division of MassTech and the Commonwealth's entity for healthcare innovation, technology, and competitiveness. MeHI partners with industry, government, and healthcare organizations to support the Massachusetts Digital Health Initiative. MeHI also helps all the Commonwealth's providers harness the benefits of electronic health records and the Mass HIway, the statewide health information exchange. For more information, please visit <https://mehi.masstech.org> and follow @MassEHealth. Learn more about the Massachusetts Digital Health Initiative at www.massdigitalhealth.org.

About Lever

Founded in 2014, Lever is an economic development non-profit focused on innovation-driven job creation. Lever supports entrepreneurs with startup expertise, an investment fund, research, mentors, and access to talent. Lever has helped launch dozens of companies that have attracted more than \$10M in equity investment and have created more than 200 jobs. Lever supports existing companies by helping their intrapreneurs “innovate from within” using proven entrepreneurial methods to generate top-line revenue growth and job creation.

About the Massachusetts Digital Health Sandbox Network

In April 2019, Massachusetts Governor Charlie Baker announced the [Digital Health Sandbox Network and Grant Program](#), administered by the Massachusetts eHealth Institute at MassTech. The program is designed to support digital health companies in their product development and expand the user base for cutting-edge research and development facilities. There are currently nine Sandboxes in the Network offering a variety of real world and simulated environments, state of the art equipment, subject matter expertise, and consulting services to digital health companies to support their clinical, technical, and user product validation. The Sandbox Network is open to all companies and Massachusetts digital health companies may apply for grant funding from MeHI to offset the costs of accessing services at a Sandbox.